

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PP21566.002	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, Item 5 below.	
International application No. PCT/US2004/036955	International filing date (day/month/year) 04/11/2004	(Earliest) Priority Date (day/month/year) 04/11/2003
Applicant CHIRON CORPORATION		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☒ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

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International application No.

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of Item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:

a. type of material

☒

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☒

in written format

☐

in computer readable form

c. time of filing/furnishing

☒

contained in the international application as filed

☐

filed together with the international application in computer readable form

☐

furnished subsequently to this Authority for the purpose of search

2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

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International Application No
PCT/US2004/036955

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K39/395 A61P35/00
//C07K16/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, EMBASE, BIOSIS, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/060485 A (IDEC PHARMACEUTICALS CORPORATION; HARIHARAN, KANDASAMY; HANNA, NABIL) 8 August 2002 (2002-08-08) page 26	1-28
A	US 5 801 227 A (FANSLow, III ET AL) 1 September 1998 (1998-09-01) the whole document	1-28
A	WO 95/17202 A (IMMUNEX CORPORATION) 29 June 1995 (1995-06-29) the whole document	1-28
A	US 5 874 082 A (DE BOER ET AL) 23 February 1999 (1999-02-23) the whole document	1-28
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

4 May 2005

Date of mailing of the international search report

17/06/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Wagner, R

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 96/18413 A (THE UNIVERSITY OF BIRMINGHAM) 20 June 1996 (1996-06-20) the whole document -----	1-25

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1-28 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/036955

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02060485	A	08-08-2002	US 2002006404 A1	17-01-2002
			US 2002028178 A1	07-03-2002
			US 2002159996 A1	31-10-2002
			AU 6461201 A	21-01-2002
			CA 2415100 A1	17-01-2002
			CA 2436180 A1	08-08-2002
			CA 2444661 A1	08-08-2002
			CN 1446104 A	01-10-2003
			CN 1494433 A	05-05-2004
			EP 1305045 A1	02-05-2003
			EP 1370292 A1	17-12-2003
			EP 1372724 A2	02-01-2004
			JP 2004502742 T	29-01-2004
			JP 2005503999 T	10-02-2005
			JP 2005503326 T	03-02-2005
			MX PA03000306 A	05-04-2004
			NO 20030128 A	12-03-2003
			NO 20033417 A	30-09-2003
			NO 20033418 A	30-09-2003
			WO 0204021 A1	17-01-2002
			WO 02060484 A1	08-08-2002
			WO 02060485 A2	08-08-2002
			WO 03039486 A2	15-05-2003
			US 2003103971 A1	05-06-2003
			US 2003180290 A1	25-09-2003
US 5801227	A	01-09-1998	AT 255906 T	15-12-2003
			AU 686230 B2	05-02-1998
			AU 7681994 A	01-05-1995
			CA 2172376 A1	13-04-1995
			DE 69433406 D1	22-01-2004
			DE 69433406 T2	07-10-2004
			DK 724456 T3	13-04-2004
			EP 0724456 A1	07-08-1996
			ES 2211884 T3	16-07-2004
			FI 961285 A	20-03-1996
			JP 9504169 T	28-04-1997
			NO 961151 A	21-03-1996
			NZ 273504 A	19-12-1997
			PT 724456 T	30-04-2004
			WO 9509653 A1	13-04-1995
WO 9517202	A	29-06-1995	AT 267607 T	15-06-2004
			AU 680102 B2	17-07-1997
			AU 1516895 A	10-07-1995
			CA 2179196 A1	29-06-1995
			DE 69433820 D1	01-07-2004
			DK 751781 T3	09-08-2004
			EP 0751781 A1	08-01-1997
			ES 2222463 T3	01-02-2005
			JP 9507074 T	15-07-1997
			NO 962526 A	23-08-1996
			NZ 278740 A	27-05-1998
			NZ 329403 A	29-09-2000
			PT 751781 T	30-09-2004
			WO 9517202 A1	29-06-1995
			US 5674492 A	07-10-1997

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Information on patent family members

International Application No

PCT/US2004/036955

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5874082	A	23-02-1999	US 5677165 A	14-10-1997
			US 5397703 A	14-03-1995
			AT 212038 T	15-02-2002
			AU 2190997 A	10-09-1997
			DE 69709632 D1	28-02-2002
			DE 69709632 T2	08-08-2002
			EP 0896585 A1	17-02-1999
			WO 9731025 A1	28-08-1997
			AT 258595 T	15-02-2004
			DE 69333403 D1	04-03-2004
			DE 69333403 T2	11-11-2004
			EP 0651797 A1	10-05-1995
			EP 0945465 A1	29-09-1999
			US 6056959 A	02-05-2000
			US 6004552 A	21-12-1999
			US 6315998 B1	13-11-2001
			US 2002106371 A1	08-08-2002
			CA 2125472 A1	20-01-1994
			JP 7509359 T	19-10-1995
			JP 3514759 B2	31-03-2004
			JP 2003081871 A	19-03-2003
			JP 2003119153 A	23-04-2003
			US 5869050 A	09-02-1999
			WO 9401547 A2	20-01-1994
			US 5747034 A	05-05-1998
WO 9618413	A	20-06-1996	AT 203676 T	15-08-2001
			AU 691996 B2	28-05-1998
			AU 3988495 A	03-07-1996
			CA 2207779 A1	20-06-1996
			DE 69522012 D1	06-09-2001
			DE 69522012 T2	25-04-2002
			EP 0806963 A1	19-11-1997
			FI 972484 A	12-06-1997
			WO 9618413 A1	20-06-1996
			JP 10510526 T	13-10-1998
			NO 972732 A	13-06-1997
			NZ 296161 A	26-10-2001